

DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208 Miami, Florida 33175-2474 T (786) 315-2590 F (786) 315-2599

www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

Buffalo Air Handling Division of Air & Liquid Systems Corporation 467 Zane Snead Drive Amherst, VA 24521-4383

Scope:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER- Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: "Big Buffalo" Air Handling Unit

APPROVAL DOCUMENT: Drawing No. 07308, titled "Buffalo Air Handling", sheets 1A, 1B, 2, 3, 4A, 4B, 5, 6, 7 & 8 of 8, prepared by Buffalo Air Handling, dated May 04, 2005, last revised on March 11, 2013, signed and sealed by Stephen V. Gregory, P.E., on March 11, 2013, bearing the Miami-Dade County Product Control Renewal stamp with the Notice of Acceptance number & the expiration date by the Miami-Dade County Product Control Section.

MISSILE IMPACT RATING: Large and Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, Amherst, Virginia and the following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA renews NOA #10-0804.17 and consists of this page 1, evidence submitted pages E-1 & E-2 as well as approval document mentioned above.

The submitted documentation was reviewed by Helmy A. Makar, P.E., M.S.

MIAMI-DADE COUNTY APPROYED

C A. N. Expir 05/16/2013 Expir App

NOA No. 13-0220.07 Expiration Date: 04/24/2018 Approval Date: 05/16/2013 Page 1

Buffalo Air Handling

Division of Air & Liquid Systems Corporation

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

1. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL #06-0322.01

A. DRAWINGS

1. Drawing No. 07308, titled "Buffalo Air Handling", sheets 1A, 1B, 2, 3, 4A, 4B, 5, 6, 7 & 8 of 8, prepared by Buffalo Air Handling, dated May 04, 2005, signed and sealed by Win Barnett, P.E., on March 06, 2008.

B. TESTS

1. Test reports on 1) Uniform Static Air Pressure Test, Loading per FBC TAS 202-94
2) Large Missile Impact Test per FBC, TAS 201-94 3) Cyclic Wind Pressure
Loading per FBC, TAS 203-94 along with marked-up drawings and installation
diagram of Aluminum Air Handler Model 1 BB Outdoor Unit, prepared by
National Certified Testing Laboratories, Test Report No. 210-3148-1, 2, dated
July 26, 2005, signed and sealed by Gerard J. Ferrara, P.E.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

1. By Miami-Dade County Building Code Compliance Office.

E. MATERIAL CERTIFICATIONS

1. Die Drawings.

2. EVIDENCE SUBMITTED UNDER PREVIOUS APPROVAL # 10-0804.17

A. DRAWINGS

1. Drawing No. 07308, titled "Buffalo Air Handling", sheets 1A, 1B, 2, 3, 4A, 4B, 5, 6, 7 & 8 of 8, prepared by Buffalo Air Handling, dated May 04, 2005, last revised on January 21, 2010, signed and sealed by Win Barnett, P.E., on April 25, 2010.

B. TESTS

1. None.

C. CALCULATIONS

None.

D. QUALITY ASSURANCE

By Miami-Dade County Building Code Compliance Office.

E. MATERIAL CERTIFICATIONS

1. None.

F. STATEMENTS

- 1. Letter of conformance, dated July 12, 2010, signed and sealed by Win Barnett, P.E.
- 2. Letter of name change, dated July 10, 2010, signed by Ted Krueger.

Helmy A. Makar, P.E., M.S. Product Control Unit Supervisor

NOA No. 13-0220.07

Expiration Date: 04/24/2018 Approval Date: 05/16/2013

Buffalo Air Handling

Division of Air & Liquid Systems Corporation

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

3. NEW EVIDENCE SUBMITTED

A. DRAWINGS

1. Drawing No. 07308, titled "Buffalo Air Handling", sheets 1A, 1B, 2, 3, 4A, 4B, 5, 6, 7 & 8 of 8, prepared by Buffalo Air Handling, dated May 04, 2005, last revised on March 11, 2013, signed and sealed by Stephen V. Gregory, P.E., on March 11, 2013.

B. TESTS

1. None.

C. CALCULATIONS

1. None.

D. QUALITY ASSURANCE

1. By Miami-Dade County Department of Regulatory and Economic Resources.

E. MATERIAL CERTIFICATIONS

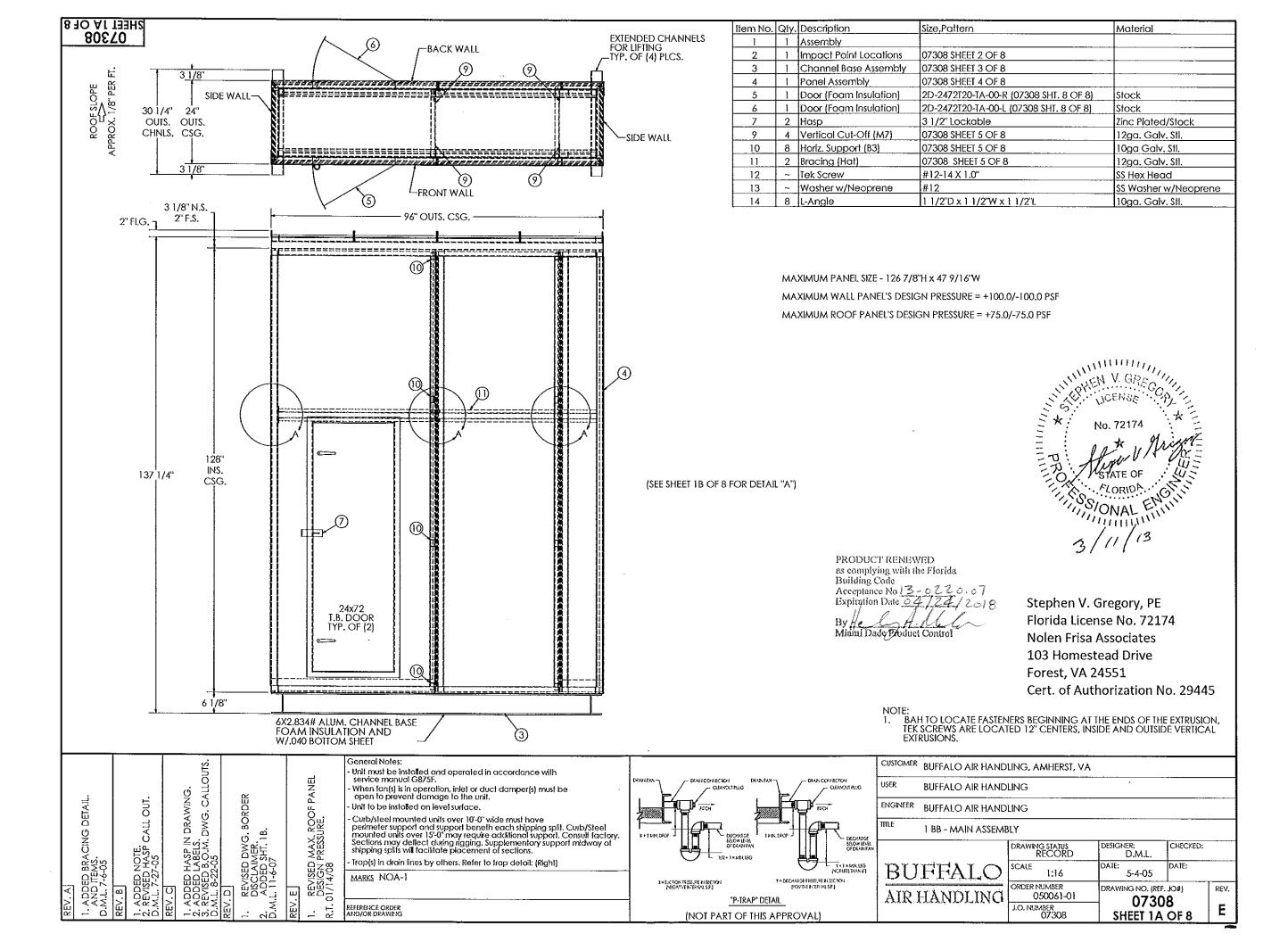
1. None.

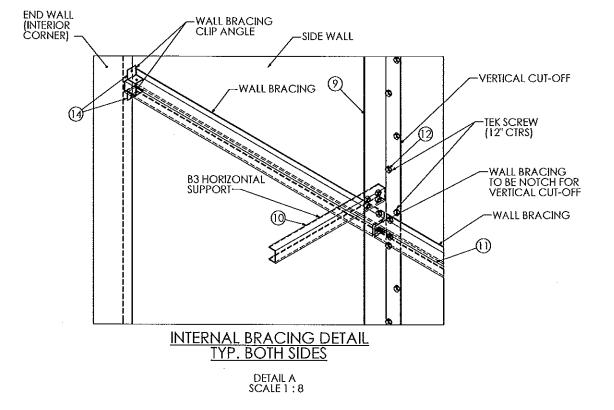
F. STATEMENTS

1. Letter of conformance to FBC, 2010, dated March 11, 2013, signed and sealed by Stephen V. Gregory, P.E.

Helmy A. Makar, P.E., M.S. Product Control Unit Supervisor NOA No. 13-0220.07

> Expiration Date: 04/24/2018 Approval Date: 05/16/2013





Air Handler Construction:

The test specimen was a one (1) panel deep by three (3) panel wide In east specimen was a one (1) panel deep by three (3) panel wide aluminum Air Handler including roofing and flooring (drawing 07308 sheet 1 of 8). The inside roof and walls consisted of 2.0" thick aluminum skin panels filled with 2.5 lb/cft density foam (drawing 07308 sheet 6 of 8). The front and back walls were three (3) panels wide, connected together with thermally broken extruded H-channet (drawing 07308 sheet 7 of 8 detail C), #12-14x 1.0" S.S. Hex Head Tek screws with neoprene bonded washers, 0.75" from the top and 12.0" on center there after on both the interior and exterior. A head of polytrethane adhesive sealant was amplied between the bead of polyurethane adhesive sealant was applied between the H-channel and the panel on both the exterior and interior surfaces (drawing 07308 sheet 7 of 8, detail A). An extruded thermally broken aluminum W-channel (drawing 07307 sheet 7 of 8, detail A), connected the sidewall panel to the front/back wall panel to form the corner. The fasteners, fastener layout, and adhesive sealant are identical as described

The wall to inside roof connection is the same as the corner connection except the fasteners located in the interior of the aluminum shape secure the aluminum shape to the inside wall panel (drawing 07308 sheet 7 of 8, detail A). Roof panel is then installed on the wall panels and secured with polyurethane adhesive sealant and #12-14 x 1.0" S.S. Hex Head Tek screws with neoprene bonded washers, located 1.75" from the end (front/rear wall panels) and 12.0" on center, both interior and exterior. The sidewall connections were the same except the fasteners were located from left to right at 3.75", 11.5" and 20.75" (exterior) and 1.25, 9.75 and 18.5" (interior). The wall panels were secured to a thermally broken U-channel (drawing 07308 sheet 7 of 8, detail 8) with adhesive sealant and #12-14 x 1.0" S.S. Hex Head Tek screws with neoprene bonded washers. Fasteners location is typical for both the rand better. both top and bottom. The U-channel was secured to the base from inside the U-channel with 0.375" Hilti nails located at 12.0" on center for the front/back walls and 0.75", 11.5" and 21.5" for the sidewalls.

Reinforcement:

Location Qly Description Vertical L-angle steel reinforcement (M7) 2.713" wide x 3.975" long x 0.10" thick Interior Wall Panel Splice Four (4) (drawing 07308, sheet 1 B of 8, detail A) Four spaced hor. At each Interior Wall Panel Splice C-channel steet reinforcement (B-3) 1.20" x 2.078" x 0.125" thick (drawing 07308, sheet 1B of 8, detail A) Eight (8) 41.0" on center. Hor, Hat channel steel reinforcement 1,75" wide x 93.875" long x 2.250" deep (drawing 07308, sheet 1B of 8, detail A) Mid-span front/rear wall Two (2) panel 46.75" O.C. from top 1.5" x 2.0" L-angle, 10 ga. (drawing 07308, sheet 1B of 8, detail A) Two each end of hat channel

The vertical L-angles (M7, Item 9) were secured to the interior side of the front/back wall H-channels with #12-14 x 1.0" S.S. Hex Head Tek screws with neoprene bonded washers, in a row of two (2) located on center from the top 1.50", 2.75", 26.25", 38.25", 45", 48.25", 54", 66", 70.75", 89.5", 102", 114", 125.25" and 127". The horizontal C-channel (B3, Item 10) was secured to the vertical L-angles at each end with four (4) #12 x 1.0" S.S. Hex Head Tek screws with neoprene bonded washers. See detail A, Drawing No. 07308, sheet 1B of 8. The Hat channel (Item 11) was secured to the interior corner with two (2) L-angles (Item 14) and #12-14 x 1.0" S.S. Hex Head Tek screws with neoprene bonded washers. [The hat channel was secured at each internal reinforcement with (2) #12-14 x 1.0" S.S. Hex Head Tek Screws with neoprene bonded washers. washers) See detail A, Drawing No. 07308, sheet 1B of 8.

PRODUCT RENEWED as complying with the Florida Building Code Acceptance No/3 - 0220.07 Expination Date 04/24/2018

Miami Dade Product Control

Stephen V. Gregory, PE Florida License No. 72174 Nolen Frisa Associates 103 Homestead Drive Forest, VA 24551

Cert. of Authorization No. 29445

WILLIAM GREENING

LEN V. GREGO

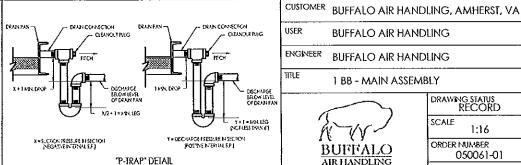
CENSE

No. 72174

CORIDA

3/11/13

MARKS General Notes: Unit must be installed and operated in accordance with service manual G875F. NOA-1 When fan(s) is in operation, inlet or duct damper(s) must be open to prevent damage to the unit. Unit to be installed on level surface. Ö Curb/steel mounted units over 10'-0" wide must have perimeter support and support beneth each shipping split. Curb/Steel mounted units over 15-0' may require additional support. Consult factory. Sections may deflect during rigging. Supplementary support midway at shipping splits will facilitate placement of sections. Trop(s) in drain lines by others. Refer to trap detail: (Right) REFERENCE ORDER AND/OR DRAWBIG

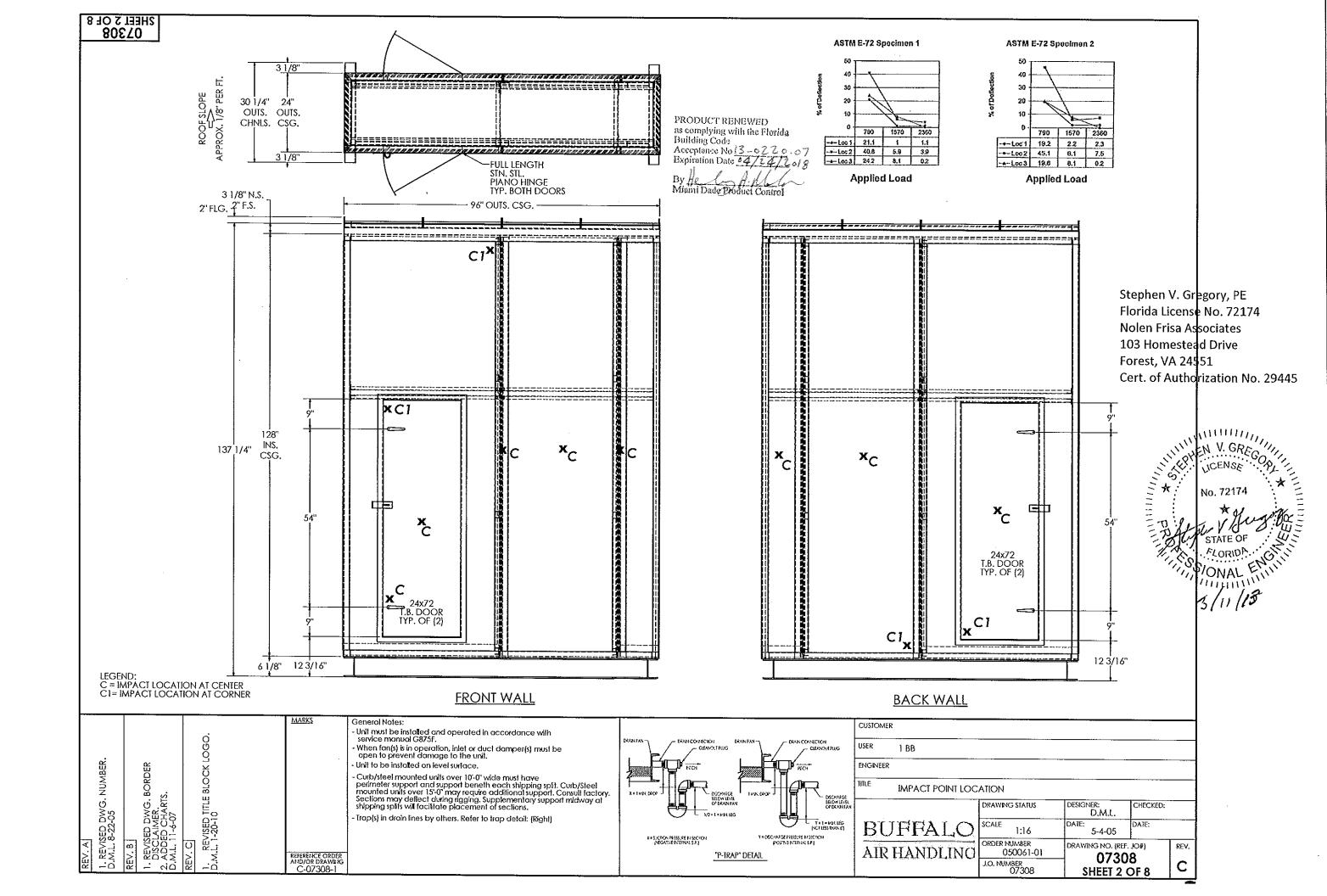


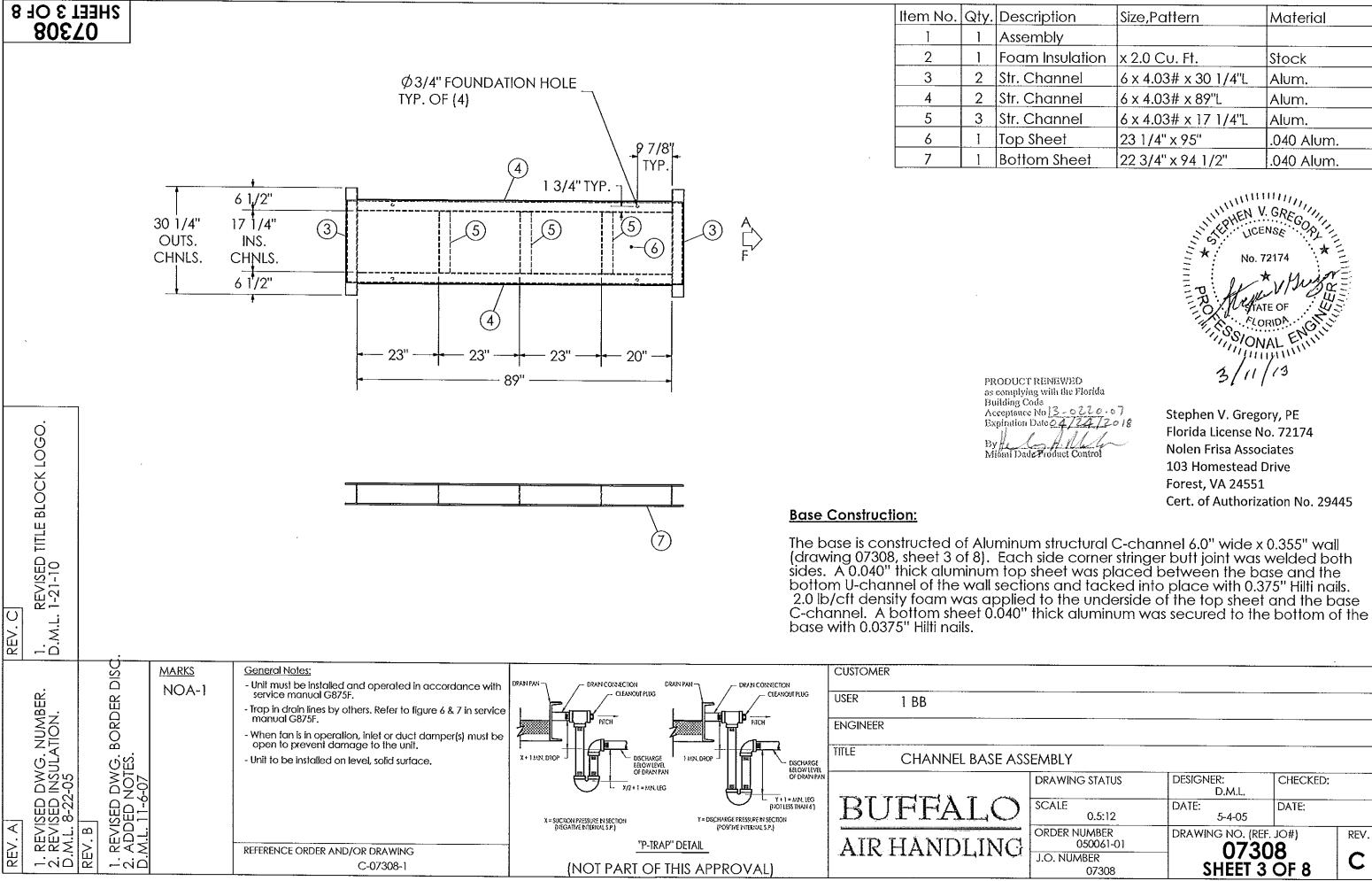
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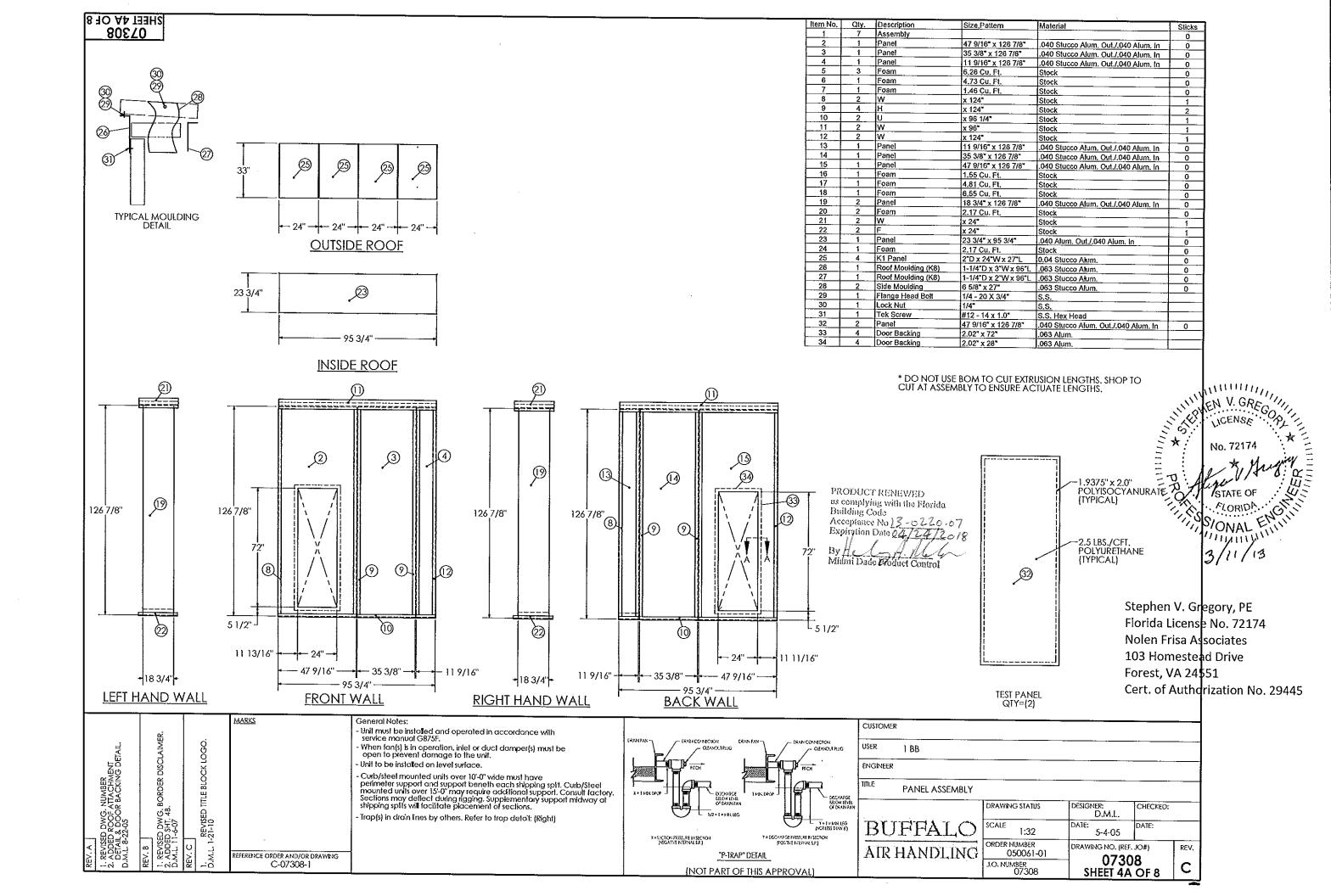
BUFFALO AIR HANDLING BUFFALO AIR HANDLING TITLE 1 BB - MAIN ASSEMBLY



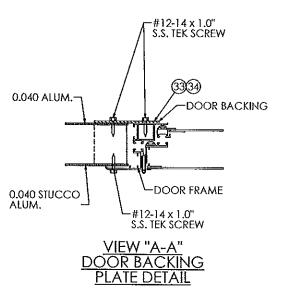
,_				
	DRAWING STATUS RECORD	DESIGNER: D.M.L.	CHECKED:	
	SCALE 1:16	DATE: 5-4-05	DATE:	
	ORDER NUMBER 050061-01	DRAWING NO. (REF. C-0730	•	REV.
	J.O. NUMBER 07308	SHEET 1B	<i>,</i> E	







SHEET 4B OF 8 C-07308-4



Door Panel Construction:

The door outer main frame was thermally broken extruded aluminum measuring 26.410" x 74.410" (drawing 07308, sheet 8 of 8), secured to the wall panel on the inside with a 2.02" wide x 0.063" backing plate on all sides and secured with two (2) rows of 12-14 x 1.0" S.S. Hex Head Tek screws with neoprene bonded washers, 1.0" from the end and 12.0" on center there after for both door interior jambs and two (2) rows of #12-14 x 1.0" S.S. Hex Head Tek screws with neoprene bonded washer, located at 3.0", 14.0" and 23.5". The door panel interior frame was thermally broken extruded aluminum measuring 22.500" x 70.250" and secured to the wall panel with #12-14 x 1.0" S.S. Hex Head Tek screws with neoprene bonded washers, located 1/4" from the edge and 5.0" on center around the perimeter. The door panels measured 22.313" wide x 70.250" high x 2.0" thick, with 0.040" stucco Aluminum outer / 0.040" Aluminum inner skins. Between the two skins was filled with 2.5 lb/cft expanded Polyurethane foam. Panel skins were riveted to the door inner frame at each corner. expanded Polyurethane foam. Panel skins were riveted to the door inner frame at each corner interior and exterior. Two (2) rivets per corner, sixteen (16) total. An adhesive sealant was placed between the door skins and the doorframe.

Weatherseals: Qty: DESCRIPTION

LOCATION

Two (2) Strips X1153BT Self-Adhering EPDM Gasket

Door Frame Perimter

<u>Hardware:</u> Qty:

DESCRIPTION

LOCATION

Two (2) One (1) Four (4)

70.535" long Stainless Steel Piano Hinge 3.5" Steel Hasp w/ steel rivets 260 Chrome Handle Assembly

One in each door frame jamb. Mid-span of door panel. Two (2) each door slab.

No. 72174

PRODUCT RENEWED as complying with the Florida

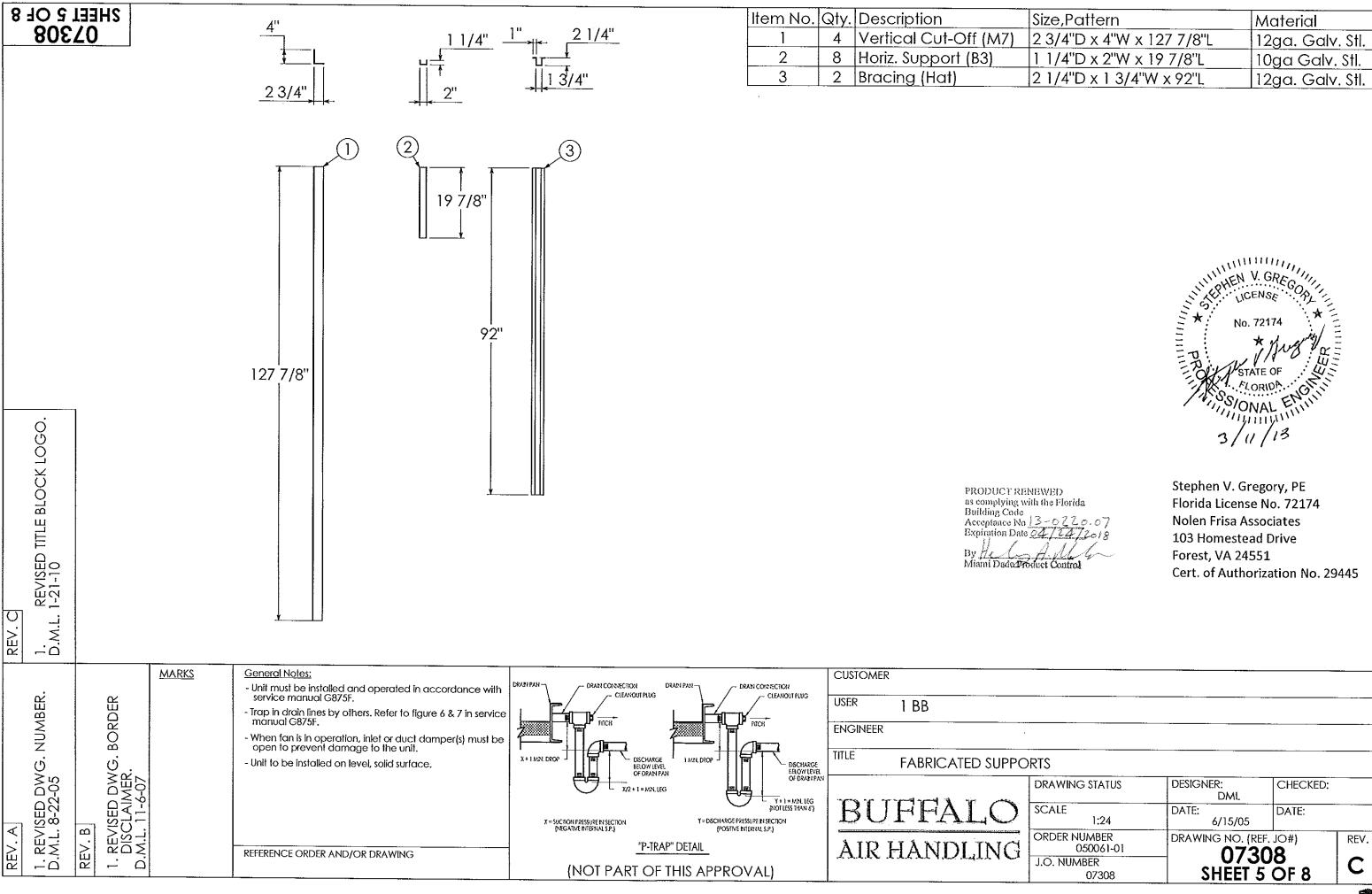
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Building Code Acceptance No 13

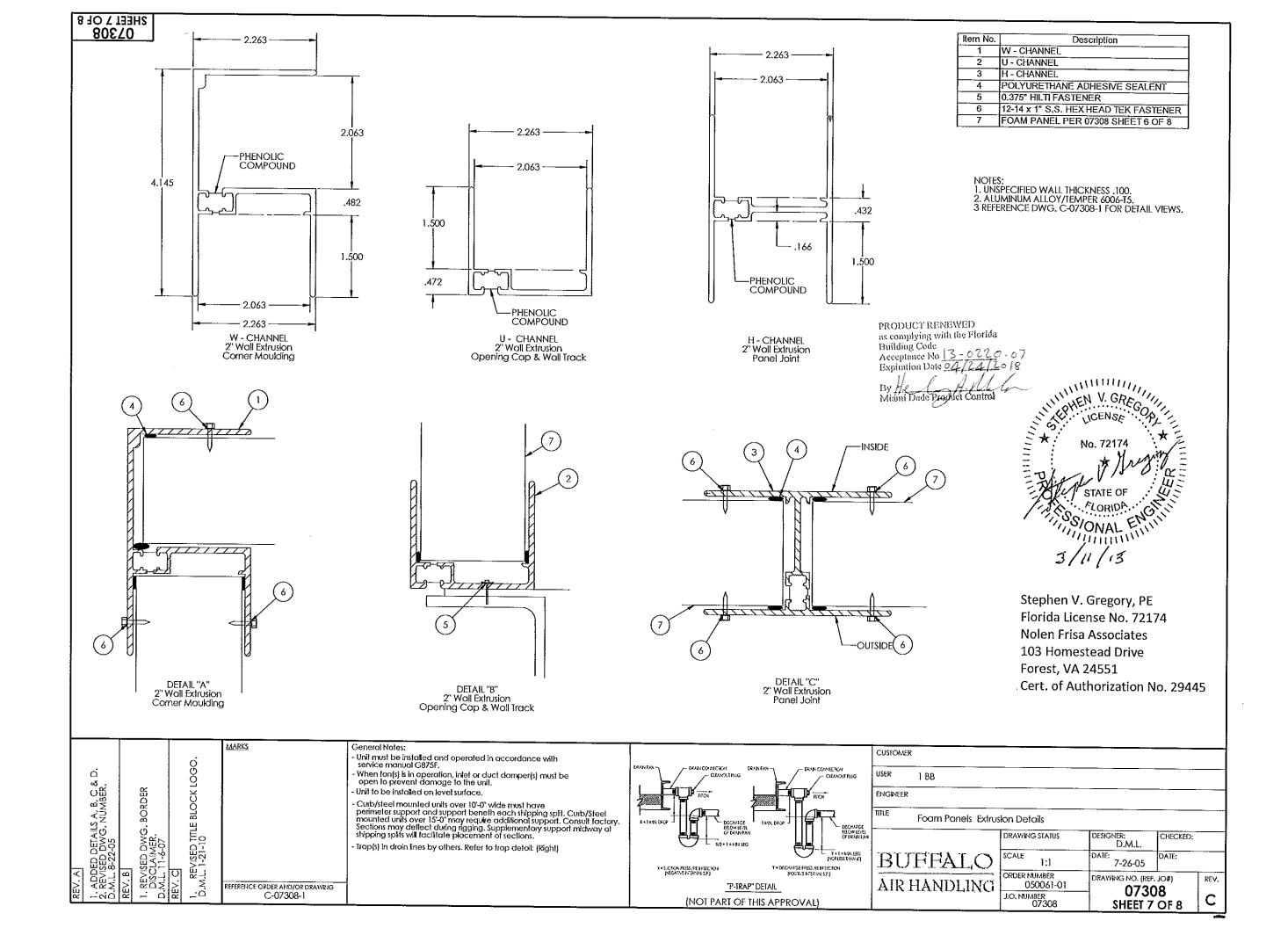
By Me Control

Stephen V. Gregory, PE Florida License No. 72174 Nolen Frisa Associates 103 Homestead Drive Forest, VA 24551 Cert. of Authorization No. 29445

	MARKS	General Notes: - Unit must be installed and operated in accordance with		CUSTOMER				
	service manual G875f. - When fan(s) is in operation, inlet or duct damper(s) must be open to prevent damage to the unit. - Unit to be installed on level surface. - Curb/steel mounted units over 10°-0° wide must have perimeter support and support beneth each shipping split. Curb/Steel mounted units over 15°-0° may require additional support. Consult factory. Sections may deflect during rigging. Supplementary support midway at shipping splits will factifule placement of sections.	DELINEAN DELINCONSCION DELINEAN DELINCONSCION CLENOMALIG	USER 1 BB					
OF 8)			ENGINEER					
44			TITLE PANEL ASSEMBLY					
E SH			OF DRANFAN GEDUNFAN GEDUNFAN GEDUNFAN		DRAWING STATUS	DESIGNER: D.M.L.	CHECKED:	
8) ਜ		- Trap(s) in droin lines by others. Refer to trap detail: (Right)	POURS EANS	BUFFALO	SCALE 1:32	DATE: 5-4-05	DATE:	- "
	REFERENCE ORDER AND/OR DRAWENG C-07308-1	>= SCHOKHESSEHISCHOI THOCOMERHESSEHISCHOI POOTENTINUSTI 'P-TRAP' DETAIL	AIR HANDLING	ORDER NUMBER 050061-01	C-0730	' 1	REV.	
			(NOI PART OF THIS APPROVAL)		J.O. NUMBER 07308	SHEET 4B		С



SHEET 6 OF 8 Panel Construction: Both sidewall panels measured 18.75" x 126.875" high x 210" thick with .040" stucco Aluminum outer / 0.040" Aluminum inner skins. The front/back wall panels measured 47.5625" wide x 126.875" high x 2.0" thick, 38.375" wide x 126.875" high x 2.0" thick and 11.5625" wide x 126.875" high x 2.0" thick with 0.040" stucco Aluminum outer / 0.040" Aluminum inner skins. Wall panels are shown on drawing 07308, sheet 4 of 8. Between the two skins was a 1.9375" x 2.0", 2.0 lb/cft density polyisocyanurate foam board around the perimeter with the balance filled with 2.5 lb/cft-expanded polyurethane. .040 ALUM INTERIOR SHEET .040 STUCCO ALUM **EXTERIOR SHEET** 2" THICK 2.5#/CU. FT. **DENSITY INJECTED** POLYUREHTANE FOAM INSULATION .9375" X 2.0#/CU. FT. DENISTY **POLYISOCYANURATE** FOAM BOARD 1. REVISED TITLE BLOCK LOGO. D.M.L. 1-21-10 TYP. AROUND PANEL PERIMETER PRODUCT RENEWED as complying with the Florida Building Code Acceptance No 13-0220.07 Stephen V. Gregory, PE Expiration Date 04/24 Florida License No. 72174 Nolen Frisa Associates 1 15/16" Miami Dade Product Control 103 Homestead Drive Forest, VA 24551 Cert. of Authorization No. 29445 REV. DISC **MARKS** General Notes: **CUSTOMER** - Unit must be installed and operated in accordance with service manual G875F, DRAIN CONNECTION - DRAIN CONNECTION CLEANOUT PLUG REVISED DWG. NUMBER M.L. 8-22-05 USER BORDER 1BB - Trap in drain lines by others. Refer to figure 6 & 7 in service manual G875F. **ENGINEER** When fan is in operation, inlet or duct damper(s) must be open to prevent damage to the unit. TITLE X+1MN.DROP – DISCHARGE BROWLEVEL OF DRAINPAN - Unit to be installed on level, solid surface. FOAM PANEL DETAIL DISCHARGE BELOW LEVEL OF DRAPLPA REVISED DWC ADDED NOTE M.L. 11-6-07 DRAWING STATUS DESIGNER: CHECKED: D.M.L. BUFFALC SCALE DATE: DATE: X = SUCTION PRESSURE IN SECTION
PREGATIVE INTERNAL S.P.J. Y = DISCHARGE PRESSURE BY SECTION 1:8 5-4-05 Ω ORDER NUMBER DRAWING NO. (REF. JO#) REV. AIR HANDLING "P-TRAP" DETAIL 050061-01 REFERENCE ORDER AND/OR DRAWING 07308 J.O. NUMBER C-07308-1 (NOT PART OF THIS APPROVAL) SHEET 6 OF 8 07308 00



2HEEL 8 OF 8 Roof Construction: 80570 The Roof inner panel measured 23.750" wide x 95.750" long x 2.0" thick, with 0.040" stucco Aluminum outer / 0.040" Aluminum inner skins. Between the two skins was a 1.9375" x 2.0", 2.0 lb/cft density Polyisocyanurate foam board around the perimeter with the balance filled with 2.5 lb/cft expanded Polyurethane. The K1 Roofing panel, 0.040" thick, was secured to the cabinet using 0.063" thick L-angle 1.250" x 2.0" on the front and a 0.063" thick L-angle 1.250" x 3.0" on the back (drawing 07308, sheet 4 of 8 and 07308, sheet 8 of 8), secured to the wall panels with #12-14 x 1.0" S.S. Hex Head Tek screws with neoprene bonded washers, located 1.0" from the end and 6.0" on center after both L-angles. A 0.063" thick angled side panel for proper roof pitch was secured to the side walls with #12-14 x 1.0" .040 STUCCO ALUM EXTERIOR PANEL WITH TURNED UP FLANGE panel for proper roof pitch was secured to the side walls with #12-14 x 1.0" 1/4 - 20 x 3/4" BOLT S.S. Hex Head Tek screws with neoprene bonded washers, 1.0" from the end and 6.0" on center there after for both sides. The K1 roof Panel was secured to the L-angles with 1/4-20 x 0.75" Flange head bolt and nylon lock nuts, located front and rear of the panels located from left to right 1.0" from the end and 6.0" on center. Adhesive sealant was used between the K1 panels W/NYLON LOCK NUTand the L-angle. A U-shaped cap covered the side panel utilizing the same bolt and nuts located from the end, left to right 1.0", 13.0" and 26.0" both ends. Each K1 panel is seamed together at the high rib with adhesive sealant applied inside the seam. ED TITLE BLOCK LOGO 1-10 2" X 2.0#/CU. FT. DENISTY FOAM BOARD 040 ALUM TYP. AROUND INTERIOR SHEET PANEL PERIMETER 2" THICK 2.3#/CU. FT. PRODUCT RENEWED as complying with the Florida DENSITY INJECTED 12 -14 x 1.0" Stephen V. Gregory, PE Building Code POLYUREHTANE FOAM Acceptance No 13-0220.07 **TEK SCREW** .040 STUCCO ALUM Florida License No. 72174 INSULATION Expiration Date 04 ROOF MOULDING Nolen Frisa Associates 103 Homestead Drive Forest, VA 24551 REV. 1. D.M. Cert. of Authorization No. 29445 DISC MARKS General Notes: CUSTOMER - Unit must be installed and operated in accordance with service manual G875F. DRAIN CONNECTION DRAM PAR DRAIN CONNECTION CLEAN/OUT PLUG NUMBER BORDER USER 1 BB - Trap in drain lines by others. Refer to figure 6 & 7 in service manual G875F. **ENGINEER** -When fan is in operation, inlet or duct damper(s) must be open to prevent damage to the unit. TITLE REVISED DWG. M.L. 8-22-05 X+1MMLDROP Unit to be installed on level, solid surface. DISCHARGE LAW DROS SLOPED ROOF PANEL DETAIL DISCHARGE BELOW LEVEL **FROW IFVE** NOTE 1009 DRAWING STATUS DESIGNER: CHECKED: 3/2 + 1 = MNL LEG D.M.L. ADDED N.M.L. 11-6 Y+1=MM LEG (NOTLESS THAN 6) **SCALE** DATE: DATE: X = SUCTION PRESSURE IN SECTION (NEGATIVE INTERNAL S.P.) Y = DISCHARGE PRESSURE IN SECTION 1:4 7-26-05 ORDER NUMBER DRAWING NO. (REF. JO#) REV. "P-TRAP" DETAIL AIR HANDLING 050061-01 REFERENCE ORDER AND/OR DRAWING 07308 --J.O. NUMBER C-07308-1 (NOT PART OF THIS APPROVAL) SHEET 8 OF 8 07308